

CLAIMS

WE CLAIM:

1. An information tracker, comprising:

a content analyzer comprising a memory for storing content data received from an information source and a processor for executing a set of machine-readable instructions for analyzing the content data according to query criteria;

an input device communicatively connected to the content analyzer for permitting a user to interact with the content analyzer; and

a display device communicatively connected to the content analyzer for displaying a result of analysis of the content data performed by the content analyzer;

wherein, according to the set of machine-readable instructions, the processor of the content analyzer analyzes the content data to extract and index one or more stories related to the query criteria.

2. The information tracker of claim 1, wherein the processor of the content analyzer uses the query criteria to spot a subject in the content data, extract one or more stories from the content data, resolve and inference names in the extracted one or more stories, and display a link to the extracted one or more stories on the display device.

3. The information tracker of claim 2, wherein, in addition to displaying the link to the extracted one or more stories, the content information about the subject to display one or more links to a shopping web-site, such that the user can purchase goods related to the subject.

4. The information tracker of claim 2, wherein the names in the extracted stories are resolved and inferred using an ontology.

5. The information tracker of claim 2, wherein, if more than one story is extracted, the processor indexes the stories according to name, topic, and keyword.

6. The information tracker of claim 5, wherein the stories are further ordered based on a causality relationship.

7. The information tracker of claim 5, wherein the stories are further ordered based on a temporal relationship.

5 8. The information tracker of claim 1, wherein the query criteria includes a request input by the user through the input device and the processor analyzes the content data according to the request.

9. The information tracker of claim 8, wherein the content analyzer further comprises a user profile, which includes information about the user's interests, and the query
10 criteria includes the user profile.

10. The information tracker of claim 9, wherein the user profile is updated by integrating information in the request with existing information in the user profile.

11. The information tracker of claim 8, wherein the content analyzer further comprises a knowledge base, which includes a plurality of known relationships, and the
15 processor analyzes the content data according to the knowledge base.

12. The information tracker of claim 11, wherein one type of the known relationships is a map of a known face to a name.

13. The information tracker of claim 11, wherein one type of the known relationships is a map of a known voice to a name.

20 14. The information tracker of claim 11, wherein one type of the known relationships is a map of a name to various related information.

15. The information tracker of claim 5, wherein the content analyzer further comprises:

a user profile, which includes information about the user's interests;

a knowledge base which includes a plurality of known relationships including a map of known faces and voices to names and other related information; and

wherein the query criteria includes the user profile and the knowledge base.

5 16. The information tracker of claim 15, wherein a person spotting function of the machine-readable instructions extracts faces, speech, and text from the content data, makes a first match of known faces to the extracted faces, makes a second match of known voices to the extracted voices, scans the extracted text to make a third match to known names, and calculates a probability of a particular person being present in the content data based on the first, second, and
10 third matches.

 17. The information tracker of claim 1, wherein the content data is a video signal.

 18. The information tracker of claim 17, wherein the information source is a cable television provider.

 19. The information tracker of claim 17, wherein the information source is a satellite
15 television provider.

 20. The information tracker of claim 1, wherein the content data is an audio signal.

 21. The information tracker of claim 20, wherein the information source is a radio station.

 22. The information tracker of claim 1, wherein the content analyzer is
20 communicatively connected to a second information source for providing access to additional content data, the additional content data being analyzed for relevant stories.

 23. The information tracker of claim 22, wherein the additional content data is analyzed according to a first approach wherein terms are extracted from the query criteria and

used to pose a search request of the second information source and a second approach wherein one or more sites provided by the second information are scanned for matching stories.

24. The information tracker of claim 23, wherein the intersection stories are those matching stories which were retrieved as a result of both the first and second approaches.

5 25. The information tracker of claim 22, wherein the relevant stories found in the additional content data are compared to find any intersection stories.

26. A method of retrieving information related to a targeted subject, the method comprising:

receiving a video source from an information source into a memory of a content analyzer;

analyzing the video to recognize persons and extract stories from the video source using a query criteria, the query criteria comprising a user profile and knowledge base stored in the content analyzer;

indexing the extracted stories according to a temporal and causal relationships;

5 and

displaying of results of the analysis of the video source.

27. The method of claim 26, wherein the analyzing of the video source to recognize persons comprises extracting faces, speech, and text from the video source, making a first match of known faces to the extracted faces, making a second match of known voices to the extracted
20 voices, scanning the extracted text to make a third match to known names, and calculating a probability of a particular person being present in the content data based on the first, second, and third matches.

28. The method of claim 26 wherein the analyzing of the video source to extract stories comprises segmenting the video source into visual, audio and textual components, fusing the information, segmenting and annotating the story internally, and inferencing the information.

29. The method of claim 26, wherein the indexing of the extracted stories comprises indexing the extracted stories alphabetically.

30. The method of claim 26, wherein the indexing of the extracted stories comprises indexing the extracted stories by topic.

31. The method of claim 26, wherein the indexing of the extracted stories comprises indexing the extracted stories according to keywords matching the query criteria.

32. The method of claim 26, wherein the indexing of the extracted stories comprises extracting a causality relationship.

33. The method of claim 26, wherein the indexing of the extracted stories comprises extracting a temporal relationship.

34. The method of claim 26, wherein the indexing of the extracted stories comprises indexing the extracted stories according to a pre-determined criteria, extracting a causality relationship, and extracting a temporal relationship, calculating a rating for each of the extracted stories from one or more characteristics of the extracted stories, and prioritizing the extracted stories.

35. The method of claim 34, further comprising creating a hyperlinked index to the extracted stories and storing the hyperlinked index.

36. A method of retrieving information related to a targeted subject, the method comprising:

receiving information from a user into a content analyzer, the information related to the user's interests;

receiving first content data into the content analyzer;

analyzing the first content data to extract a story relevant to the information

5 received from the user; and

displaying a link to the story so as to make the story accessible to the user.

37. The method of claim 36, further comprising accessing second content data and searching the second content data for relevant information.

38. The method of claim 36, wherein the content analyzer is centrally located and the user accesses the content analyzer via a communications network.

39. A information tracking retrieval system, comprising:

a centrally located content analyzer in communication with a storage device, the content analyzer being accessible to a plurality of users and information sources via a communications network, and the content analyzer being programmed with a set of machine-readable instructions to:

receive first content data into the content analyzer;

receive a request from at least one of the users;

in response to receipt of the request, analyze the first content data to extract one or more stories relevant to the request; and

20 provide access to the one or more stories.